

STATIONARY SOURCE PERMIT TO OPERATE
This permit includes designated equipment subject to
New Source Performance Standards (NSPS).

This permit supersedes your permits dated February 28, 2005 and July 20, 2006.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Temple Inland
2333 Wells Road
Petersburg, Virginia 23805
Registration No.: 50518

is authorized to operate

a packaging and printing facility

located at

2333 Wells Road
Petersburg, Virginia 23805

in accordance with the Conditions of this permit.

Approved on **DRAFT.**

Robert J. Weld
Deputy Regional Director

Permit consists of 10 pages.
Permit Conditions 1 to 36.

INTRODUCTION

This permit approval is based on the permit application dated April 29, 1998 and December 8, 2004, including amendment information dated June 12, 1998, February 8, 1999, July 12, 2000, September 11, 2000, October 30, 2000, April 27, 2001, August 27, 2001, September 7, 2001, June 12, 2003, March 6, 2006, July 12, 2006, November 3, 2006, May 22, 2007, June 15, 2007, June 19, 2007, and July 3, 2007. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Equipment installed prior to the date of this permit			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
EG-227	Mitsubishi, 4 Color Sheet-Fed Flexographic Folder Gluer and Die Cutter	21,000 sheets/hr 3.5 gal of ink/hr 0.55 gal glue/hr	--
EO-4141	Ward, 66"x125" Rotary 4-Color Die Cutter, 16000	10,200 sheets/hr 3.5 gal of ink/hr	--

Equipment permitted prior to the date of this permit			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
RB01	Cleaver Brooks fuel boiler (Model # CB200-400)	16.8 MMBtu/hr	NSPS, Subpart Dc
B-1	Cleaver Brooks dual fuel boiler	11.7 MMBtu/hr	--
EG-121	Water-based flexographic folder-gluer with 4 print stations	35 lbs/hr	--
EG-135	Water-based flexographic folder-gluer with 3 print stations	35 lbs/hr	--
EG-57	Water-based flexographic folder-gluer with 2 print stations	35 lbs/hr	--
EG-59	Water-based flexographic folder-gluer with 3 print stations	35 lbs/hr	--
PW-1	Parts washer degreasing unit	77 gal	--

SS	Peabody Tectank starch silo (Serial # 11665)	230,510 lbs storage capacity	--
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(9 VAC 5-80-850)

2. **Emission Controls** – Volatile organic compounds (VOC) emissions from the flexographic folder gluers (Ref. Nos. EG-121, EG-135, EG-57, EG-59, **EG-227, and EO-4141**) shall be controlled by using only compliant inks with a VOC content of no more than 1.48 lbs/gallon and glues with a maximum VOC content of 0.97 lbs/gallon as applied.
(9 VAC 5-80-1180 and 9 VAC 5-80-850)
3. **Emission Controls** – Particulate matter emissions from the starch silo (Ref. No. SS) shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when receiving starch into the starch silo.
(9 VAC 5-80-850)
4. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9 VAC 5-50-20 F and 9 VAC 5-80-1180)
5. **Monitoring Devices** - The fabric filter shall be equipped with devices to continuously measure the differential pressure drop across the fabric filter. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the silo is being loaded.
(9 VAC 5-80-850)
6. **Monitoring Device Observation** – To ensure good performance, the process/control monitoring device used to continuously measure the differential pressure drop across the fabric filter shall be observed by the permittee with a frequency sufficient to ensure good performance of the fabric filter. The permittee shall keep a log of the observations from the process/control monitoring device.
(9 VAC 5-80-850)

OPERATING LIMITATIONS

7. **Throughput** - The throughput of volatile organic compounds (VOC) to the rotary die cutter (Ref. No. EO-4141) shall not exceed 2 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180)
8. **Throughput** - The throughput of VOC in the inks, glues, thinners, solvents, and cleaning agents for the flexographic folder gluers (Ref. Nos. EG-121, EG-135, EG-57, EG-59, **EG-227, and EO-4141**) shall not exceed a combined total of 11.5 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-850)

9. **Throughput** - The throughput of hazardous air pollutants (HAPs) to the flexographic folder gluers (Ref. Nos. EG-121, EG-135, EG-57, EG-59, **EG-227, and EO-4141**) shall not exceed a total of 9.4 tons per year of any single HAP and 24.4 tons per year of emissions of total HAPs, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-850)

10. **Throughput** - The throughput of starch through the starch silo (Ref. No. SS) shall not exceed 2,148,449 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-850)

11. **Fuel** - The approved fuels for the Cleaver Brooks boiler (Ref. Nos. B-1) are natural gas and distillate oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)

12. **Fuel** - The approved fuel for the Cleaver Brooks boiler (Ref. Nos. RB01) is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850)

13. **Fuel Throughput** - The Cleaver Brooks boiler (Ref. No. B-1) shall consume no more than 102.5 million cubic feet of natural gas or 742,696 gallons of distillate oil per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. If a combination of the two fuels is used, then the quantities of natural gas and distillate oil, calculated monthly as the sum of each consecutive 12 month period, shall not exceed values that will allow the following equation to hold true:

$$(X) * (1,000 \text{ Btu/ft}^3) + (Y) * (138,000 \text{ Btu/gal}) \leq 102,500 \times 10^6 \text{ Btu/yr}$$

where X = Number of cubic feet of natural gas burned during any 12 consecutive month period

Y = Number of gallons of distillate fuel oil burned during any 12 consecutive month period

(9 VAC 5-80-850)

14. **Fuel Throughput** - The Cleaver Brooks boiler (Ref. No. RB01) shall consume no more than 147.2 million cubic feet of natural gas per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-850)

15. **Fuel** - The distillate oil and natural gas shall meet the specifications below:

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

Minimum heat content:

138,000 Btu/gal

Maximum sulfur content per shipment for the boiler (B-1)

0.5% by weight

NATURAL GAS:

Minimum heat content: 1,000 Btu/cf HHV
as determined by ASTM D1826, D2382, or a DEQ-approved equivalent method.

(9 VAC 5-80-850)

16. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the distillate oil was received;
- c. The quantity of distillate oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 1 or 2 fuel oil;
- e. The sulfur content of the distillate oil;

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 15. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-850)

17. **Operating and Training Procedures** - Boiler emissions shall be controlled by proper operation and maintenance of combustion. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-170-160)

18. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 1 shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.

(9 VAC 5-50-400 and 9 VAC 5-50-410)

EMISSION LIMITS

19. **Process Emission Limits** - Emissions from the operation of the flexographic folder gluers (Ref. Nos. EG-121, EG-135, EG-57, EG-59, **EG-227, and EO-4141**) shall not exceed the limits specified below:

Volatile Organic Compounds	40.8 lbs/hr	11.5 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 2, 7, 8, and 9.

(9 VAC 5-80-850)

20. **Process Emission Limits** - Emissions from the operation of the Cleaver Brooks boiler (Ref. No. B-1) shall not exceed the limits specified below:

Particulate Matter	0.2 lbs/hr	0.7 tons/yr
Sulfur Dioxide	6.0 lbs/hr	26.4 tons/yr
Nitrogen Oxides (as NO ₂)	1.7 lbs/hr	7.4 tons/yr
Carbon Monoxide	1.0 lbs/hr	4.3 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 11, 13, and 15.
(9 VAC 5-80-850)

21. **Process Emission Limits** - Emissions from the operation of the Cleaver Brooks boiler (Ref. No. RB01) shall not exceed the limits specified below:

Particulate Matter	0.2 lbs/hr	0.7 tons/yr
PM-10	0.2 lbs/hr	0.7 tons/yr
Nitrogen Oxides (as NO ₂)	2.0 lbs/hr	8.8 tons/yr
Carbon Monoxide	0.7 lbs/hr	2.9 tons/yr
Volatile Organic Compounds	0.3 lbs/hr	1.3 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 12, 14, and 15.
(9 VAC 5-80-850)

22. **Facility wide Emission Limits** - Total emissions from the facility shall not exceed the limits specified below:

Particulate Matter	0.4 lbs/hr	1.6 tons/yr
PM-10	0.3 lbs/hr	1.3 tons/yr
Sulfur Dioxide	6.1 lbs/hr	26.5 tons/yr
Nitrogen Oxides (as NO ₂)	3.7 lbs/hr	16.3 tons/yr
Carbon Monoxide	1.7 lbs/hr	7.3 tons/yr
Volatile Organic Compounds	41.1 lbs/hr	13.4 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of

emission limits. Compliance with these emission limits may be determined as stated in Conditions 2-18.
(9 VAC 5-80-850)

23. **Emission Limits: Hazardous Air Pollutants** - Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the facility shall not exceed 9.4 tons per year of any individual HAP or 24.4 tons per year of any combination, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-850)
24. **Visible Emission Limit** - Visible emissions from the starch silo (Ref. No. SS) fabric filter control device exhaust duct shall not exceed 5.0 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 10.0 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850)
25. **Visible Emission Limit** - Visible emissions from the Cleaver Brooks boiler (Ref. Nos. B-1) shall not exceed 10.0 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20.0 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850)
26. **Visible Emission Limit** - Visible emissions from the Cleaver Brooks boiler (Ref. Nos. RB01) shall not exceed 10.0 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20.0 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850 and 9 VAC 5-50-410)

RECORDS

27. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
- a. Monthly and annual consumption of natural gas and distillate oil for the Cleaver Brooks boiler (Ref. No. B-1). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - b. Monthly and annual consumption of natural gas for the Cleaver Brooks boiler (Ref. No. RB01). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - c. Heat input calculations for the Cleaver Brooks boiler (Ref. No. B-1) as specified in Condition 13.
 - d. Monthly and annual throughput of VOCs in the inks, glues, thinners, solvents, and cleaning agents for the flexographic folder gluers (Ref. Nos. EG-121, EG-135, EG-57, EG-59, EG-227, and

EO-4141). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

- e. Annual throughput of starch through the starch silo (Ref. No. SS), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- f. All fuel supplier certifications.
- g. Material Safety Data Sheets (MSDS) or other vendor information as approved by DEQ showing VOC content, HAP content, water content, and solids content for each coating, adhesive, ink, thinner, and cleaning solution used.
- h. Monthly material balance of VOC used by the parts washer to include the throughput of VOC used in the parts washer and the amount of VOC disposed of offsite from the parts washer.
- i. Monthly and annual emissions to verify compliance with the individual and total HAP emission limitations in Condition 23. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- j. Operation and control device monitoring records for the fabric filter as required in Condition 6.
- k. Scheduled and unscheduled maintenance and boiler operating procedures and operator training.
- l. Results of all visible emission evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-900)

28. **Emission Testing** - The facility shall be constructed/modified/installed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-80-880 and 9 VAC 5-80-850)

REPORTING

29. **Semi-Annual Reports** - The permittee shall submit fuel quality reports to the Director, Piedmont Region within 30 days after the end of each semi-annual period. If no shipments of distillate oil were received during the semi-annual period, the semi-annual report shall consist of the dates included in the semi-annual period and a statement that no oil was received during the semi-annual period. If distillate oil was received during the semi-annual period, the reports shall include:

- a. Dates included in the semi-annual period,
- b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the semi-annual period or a semi-annual summary from each fuel supplier that includes the information specified in Condition 16 for each shipment of distillate oil, and

- c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified below:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-170-160 and 9 VAC 5-50-50)

GENERAL CONDITIONS

30. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
 - a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
 - c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
 - d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-170-130 and 9 VAC 5-80-850)

31. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Director, Piedmont Region of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Piedmont Region in writing.
(9 VAC 5-20-180 C and 9 VAC 5-80-850)

32. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-850)

33. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-50-20 E and 9 VAC 5-80-850)

34. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that an application for this permit is submitted;
- f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.
(9 VAC 5-80-1010)

35. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Piedmont Region of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)

36. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)

